

Construction Materials and Excavating

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
AaC2: Aceitunas-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (limited)	Very limited ~too clayey (very limited) ~cutbanks cave (slightly limited)
AbC2: Aceitunas-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (limited)	Very limited ~too clayey (very limited) ~cutbanks cave (slightly limited)
AcD: Aguilita-----	Slightly limited ~large stones (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~excess lime (very limited) ~large stones >25% (very limited) ~slope (limited)	Limited ~slope (limited) ~cutbanks cave (slightly limited) ~too clayey (slightly limited)
AcE: Aguilita-----	Very limited ~slope (very limited) ~large stones (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~excess lime (very limited) ~slope (very limited) ~large stones >25% (very limited)	Very limited ~slope (very limited) ~cutbanks cave (slightly limited) ~too clayey (slightly limited)
AdE2: Aibonito-----	Very limited ~low strength (very limited) ~slope (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (very limited) ~too acid (limited)	Very limited ~slope (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
An: Alluvial land-----	Not rated	Not rated	Not rated	Not rated	Not rated
AoD: Anones-----	Very limited ~depth to bedrock (very limited) ~low strength (slightly limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~too acid (slightly limited)	Very limited ~slope (very limited) ~soft bedrock <40" (limited) ~cutbanks cave (slightly limited)
AoE2: Anones-----	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~low strength (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~too acid (slightly limited)	Very limited ~slope (very limited) ~soft bedrock <40" (limited) ~cutbanks cave (slightly limited)
AoF2: Anones-----	Very limited ~slope (very limited) ~depth to bedrock (very limited) ~low strength (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~too acid (slightly limited)	Very limited ~slope (very limited) ~soft bedrock <40" (limited) ~cutbanks cave (slightly limited)
Ba: Bajura-----	Very limited ~shrink-swell (very limited) ~low strength (very limited) ~wetness (limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~wetness (limited)	Very limited ~wetness (very limited) ~too clayey (limited) ~flooding (moderately limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
BcB: Bejucos-----	Very limited ~low strength (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (moderately limited)	Moderately limited ~too clayey (moderately limited) ~cutbanks cave (slightly limited)
BeB: Bejucos-----	Very limited ~low strength (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (moderately limited)	Moderately limited ~too clayey (moderately limited) ~cutbanks cave (slightly limited)
CaC: Cabo rojo-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (slightly limited)	Limited ~too clayey (limited) ~cutbanks cave (slightly limited)
CaC2: Cabo rojo-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (slightly limited)	Limited ~too clayey (limited) ~cutbanks cave (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
CbF2: Caguabo-----	Very limited ~depth to bedrock (very limited) ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~small stones (very limited)	Very limited ~hard bedrock <40" (very limited) ~slope (very limited) ~cutbanks cave (slightly limited)
CcB: Camaguey-----	Very limited ~shrink-swell (very limited) ~low strength (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited)	Very limited ~cutbanks cave (very limited) ~too clayey (limited)
Cd: Catano-----	Not limited	Probable source	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too sandy (very limited) ~excess lime (limited)	Very limited ~cutbanks cave (very limited)
Ce: Catano-----	Not limited	Probable source ~excess fines (thickest layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too sandy (very limited) ~excess lime (limited)	Very limited ~cutbanks cave (very limited)
CfC2: Cidral-----	Very limited ~low strength (very limited) ~shrink-swell (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (moderately limited)	Limited ~too clayey (limited) ~cutbanks cave (slightly limited)
Ch: Coastal beach-----	Not rated	Not rated	Not rated	Not rated	Not rated

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
CLD: Colinas-----	Very limited ~depth to bedrock (very limited) ~low strength (very limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~excess lime (very limited) ~slope (very limited)	Very limited ~slope (very limited) ~soft bedrock <40" (limited) ~cutbanks cave (slightly limited)
CLE: Colinas-----	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~low strength (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~excess lime (very limited) ~slope (very limited)	Very limited ~slope (very limited) ~soft bedrock <40" (limited) ~cutbanks cave (slightly limited)
CLF2: Colinas-----	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~low strength (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~excess lime (very limited) ~slope (very limited)	Very limited ~slope (very limited) ~soft bedrock <40" (limited) ~cutbanks cave (slightly limited)
CmD: Colinas-----	Very limited ~depth to bedrock (very limited) ~low strength (very limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~excess lime (very limited) ~large stones >25% (very limited)	Very limited ~slope (very limited) ~soft bedrock <40" (limited) ~cutbanks cave (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
CmE:					
Colinas-----	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~low strength (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~excess lime (very limited) ~slope (very limited)	Very limited ~slope (very limited) ~soft bedrock <40" (limited) ~cutbanks cave (slightly limited)
Cn:					
Coloso-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited)	Limited ~wetness (limited) ~flooding (moderately limited) ~too clayey (moderately limited)
CoE:					
Consumo-----	Very limited ~low strength (very limited) ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (limited) ~too acid (moderately limited)	Very limited ~slope (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)
CoF2:					
Consumo-----	Very limited ~slope (very limited) ~low strength (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (limited) ~too acid (moderately limited)	Very limited ~slope (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
Cr: Corcega-----	Moderately limited ~wetness (moderately limited)	Probable source ~excess fines (thickest layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Moderately limited ~too sandy (moderately limited) ~wetness (moderately limited) ~too clayey (slightly limited)	Very limited ~cutbanks cave (very limited) ~wetness (very limited) ~flooding (moderately limited)
CtB2: Cotito-----	Very limited ~low strength (very limited) ~depth to bedrock (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~depth to bedrock (very limited)	Very limited ~hard bedrock <40" (very limited) ~too clayey (very limited) ~cutbanks cave (slightly limited)
CuB2: Coto-----	Very limited ~low strength (very limited) ~shrink-swell (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (slightly limited)	Very limited ~too clayey (very limited) ~cutbanks cave (slightly limited)
CuC2: Coto-----	Very limited ~low strength (very limited) ~shrink-swell (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (slightly limited) ~slope (slightly limited)	Very limited ~too clayey (very limited) ~cutbanks cave (slightly limited) ~slope (slightly limited)
CvB: Coto-----	Very limited ~low strength (very limited) ~shrink-swell (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (slightly limited)	Very limited ~too clayey (very limited) ~cutbanks cave (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
CwF: Cuchillas-----	Very limited ~depth to bedrock (very limited) ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited)	Very limited ~slope (very limited) ~soft bedrock <40" (limited) ~cutbanks cave (slightly limited)
DaD2: Daguey-----	Very limited ~low strength (very limited) ~slope (slightly limited) ~shrink-swell (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~slope (very limited) ~too acid (slightly limited)	Very limited ~too clayey (very limited) ~slope (very limited) ~cutbanks cave (slightly limited)
DaE2: Daguey-----	Very limited ~low strength (very limited) ~slope (very limited) ~shrink-swell (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (very limited) ~too acid (slightly limited)	Very limited ~slope (very limited) ~too clayey (very limited) ~cutbanks cave (slightly limited)
DcD2: Delicias-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~slope (limited) ~small stones (moderately limited)	Limited ~slope (limited) ~too clayey (limited) ~cutbanks cave (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
DeC: Descalabrado-----	Very limited ~depth to bedrock (very limited) ~shrink-swell (very limited) ~low strength (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~small stones (very limited) ~too clayey (very limited)	Very limited ~hard bedrock <40" (very limited) ~cutbanks cave (very limited) ~too clayey (moderately limited)
DeD: Descalabrado-----	Very limited ~depth to bedrock (very limited) ~shrink-swell (very limited) ~low strength (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~small stones (very limited) ~too clayey (very limited)	Very limited ~hard bedrock <40" (very limited) ~cutbanks cave (very limited) ~slope (very limited)
DeF: Descalabrado-----	Very limited ~depth to bedrock (very limited) ~shrink-swell (very limited) ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~small stones (very limited)	Very limited ~hard bedrock <40" (very limited) ~slope (very limited) ~cutbanks cave (very limited)
Du: Dique-----	Very limited ~low strength (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Not limited	Moderately limited ~flooding (moderately limited) ~cutbanks cave (slightly limited)
Es: Espinal-----	Not limited	Possible source ~possible source (thickest layer) ~possible source (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too sandy (very limited)	Very limited ~cutbanks cave (very limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
GnC: Guanajibo-----	Very limited ~low strength (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Moderately limited ~too clayey (moderately limited) ~too sandy (moderately limited) ~too acid (moderately limited)	Limited ~too clayey (limited) ~cutbanks cave (slightly limited)
GoC: Guanajibo-----	Very limited ~low strength (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Moderately limited ~too clayey (moderately limited) ~too sandy (moderately limited) ~too acid (moderately limited)	Limited ~too clayey (limited) ~cutbanks cave (slightly limited)
GPQ: Gravel, pits and quarries----	Not rated	Not rated	Not rated	Not rated	Not rated
GuB: Guerrero-----	Very limited ~low strength (very limited) ~shrink-swell (slightly limited)	Possible source ~excess fines (bottom layer) ~possible source (thickest layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too sandy (very limited)	Very limited ~cutbanks cave (very limited) ~too clayey (limited)
HmD2: Humatas-----	Very limited ~low strength (very limited) ~shrink-swell (slightly limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~slope (very limited) ~too acid (slightly limited)	Very limited ~too clayey (very limited) ~slope (very limited) ~cutbanks cave (slightly limited)

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Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
HmE2: Humatas-----	Very limited ~low strength (very limited) ~slope (very limited) ~shrink-swell (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (very limited) ~too acid (slightly limited)	Very limited ~slope (very limited) ~too clayey (very limited) ~cutbanks cave (slightly limited)
HmF2: Humatas-----	Very limited ~slope (very limited) ~low strength (very limited) ~shrink-swell (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (very limited) ~too acid (slightly limited)	Very limited ~slope (very limited) ~too clayey (very limited) ~cutbanks cave (slightly limited)
HuE: Humatas-----	Very limited ~low strength (very limited) ~slope (very limited) ~shrink-swell (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~slope (very limited) ~too acid (slightly limited)	Very limited ~too clayey (very limited) ~slope (very limited) ~cutbanks cave (slightly limited)
Ig: Igualdad-----	Limited ~wetness (limited) ~shrink-swell (slightly limited)	Possible source ~excess fines (thickest layer) ~possible source (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~wetness (limited)	Very limited ~cutbanks cave (very limited) ~wetness (very limited) ~flooding (moderately limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
JaC: Jacana-----	Very limited ~low strength (very limited) ~depth to bedrock (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~depth to bedrock (very limited) ~slope (slightly limited)	Limited ~too clayey (limited) ~soft bedrock <40" (moderately limited) ~cutbanks cave (slightly limited)
Jd: Jaucas-----	Not limited	Probable source	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too sandy (very limited) ~excess salts (very limited) ~excess lime (limited)	Very limited ~cutbanks cave (very limited)
JoB: Jobos-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (slightly limited)	Limited ~too clayey (limited) ~cutbanks cave (slightly limited)
JuD2: Juncal-----	Very limited ~low strength (very limited) ~shrink-swell (very limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~slope (very limited)	Very limited ~slope (very limited) ~too clayey (moderately limited) ~cutbanks cave (slightly limited)
LaB2: Lares-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (slightly limited)	Limited ~too clayey (limited) ~cutbanks cave (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
LaD2:					
Lares-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~slope (limited) ~too acid (slightly limited)	Limited ~too clayey (limited) ~slope (limited) ~cutbanks cave (slightly limited)
Lc:					
Leveled clayey land-----	Not rated	Not rated	Not rated	Not rated	Not rated
Le:					
Leveled clayey land-----	Not rated	Not rated	Not rated	Not rated	Not rated
Lf:					
Leveled land-----	Not rated	Not rated	Not rated	Not rated	Not rated
LFD:					
Landfill-----	Not rated	Not rated	Not rated	Not rated	Not rated
Lm:					
Leveled sandy land-----	Not rated	Not rated	Not rated	Not rated	Not rated
Lo:					
Limestone outcrop-----	Not rated	Not rated	Not rated	Not rated	Not rated
Lr:					
Limestone rock land-----	Not rated	Not rated	Not rated	Not rated	Not rated
LuD2:					
Los guineos-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~slope (very limited) ~too acid (limited)	Very limited ~slope (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)

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Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
LuF2: Los guineos-----	Very limited ~low strength (very limited) ~slope (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (very limited) ~too acid (limited)	Very limited ~slope (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)
MaB: Mabi-----	Very limited ~shrink-swell (very limited) ~low strength (very limited) ~wetness (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~wetness (slightly limited)	Very limited ~cutbanks cave (very limited) ~wetness (very limited) ~too clayey (limited)
MaC2: Mabi-----	Very limited ~shrink-swell (very limited) ~low strength (very limited) ~wetness (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~wetness (slightly limited) ~slope (slightly limited)	Very limited ~cutbanks cave (very limited) ~wetness (very limited) ~too clayey (limited)
McF2: Malaya-----	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~shrink-swell (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~too clayey (very limited)	Very limited ~hard bedrock <40" (very limited) ~slope (very limited) ~too clayey (moderately limited)
MdB: Maleza-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited)	Limited ~too clayey (limited) ~cutbanks cave (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
Mh: Mani-----	Very limited ~low strength (very limited) ~shrink-swell (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited)	Limited ~wetness (limited) ~flooding (moderately limited) ~too clayey (moderately limited)
Mn: Mani-----	Very limited ~low strength (very limited) ~shrink-swell (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited)	Limited ~wetness (limited) ~flooding (moderately limited) ~too clayey (moderately limited)
MoD2: Maresua-----	Very limited ~depth to bedrock (very limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Possible source ~excess fines (bottom layer) ~possible source (thickest layer)	Very limited ~small stones (very limited) ~too clayey (very limited) ~slope (very limited)	Very limited ~cutbanks cave (very limited) ~slope (very limited) ~too clayey (moderately limited)
MoF2: Maresua-----	Very limited ~depth to bedrock (very limited) ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Possible source ~excess fines (bottom layer) ~possible source (thickest layer)	Very limited ~slope (very limited) ~small stones (very limited) ~too clayey (very limited)	Very limited ~slope (very limited) ~cutbanks cave (very limited) ~too clayey (moderately limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
MpD2: Mariana-----	Very limited ~low strength (very limited) ~depth to bedrock (moderately limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~slope (very limited) ~too acid (limited)	Very limited ~slope (very limited) ~too clayey (moderately limited) ~cutbanks cave (slightly limited)
MpE2: Mariana-----	Very limited ~low strength (very limited) ~slope (very limited) ~depth to bedrock (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (very limited) ~too acid (limited)	Very limited ~slope (very limited) ~too clayey (moderately limited) ~cutbanks cave (slightly limited)
MrF2: Maricao-----	Very limited ~low strength (very limited) ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (very limited) ~too acid (limited)	Very limited ~slope (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)
MsB: Matanzas-----	Very limited ~low strength (very limited) ~shrink-swell (very limited) ~depth to bedrock (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited)	Very limited ~too clayey (very limited) ~depth to bedrock (limited) ~cutbanks cave (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
MtB: Matanzas-----	Very limited ~low strength (very limited) ~shrink-swell (very limited) ~depth to bedrock (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited)	Very limited ~too clayey (very limited) ~depth to bedrock (limited) ~cutbanks cave (slightly limited)
Limestone rockland-----	Not rated	Not rated	Not rated	Not rated	Not rated
MuC2: Moca-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (moderately limited) ~slope (slightly limited)	Limited ~too clayey (limited) ~cutbanks cave (slightly limited) ~slope (slightly limited)
MuD2: Moca-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~slope (very limited) ~too acid (moderately limited)	Very limited ~slope (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)
MuD3: Moca-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~slope (very limited) ~too acid (moderately limited)	Very limited ~slope (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
MuE3: Moca-----	Very limited ~low strength (very limited) ~slope (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (very limited) ~too acid (moderately limited)	Very limited ~slope (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)
MvC: Montegrande-----	Very limited ~shrink-swell (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~small stones (very limited) ~area reclaim (very limited) ~too clayey (very limited)	Very limited ~cutbanks cave (very limited) ~too clayey (limited) ~wetness (limited)
MwD2: Morado-----	Very limited ~low strength (very limited) ~depth to bedrock (very limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~depth to bedrock (very limited) ~too clayey (limited)	Very limited ~slope (very limited) ~soft bedrock <40" (moderately limited) ~cutbanks cave (slightly limited)
MwE2: Morado-----	Very limited ~low strength (very limited) ~depth to bedrock (very limited) ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~depth to bedrock (very limited) ~too clayey (limited)	Very limited ~slope (very limited) ~soft bedrock <40" (moderately limited) ~cutbanks cave (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
MwF2: Morado-----	Very limited ~slope (very limited) ~low strength (very limited) ~depth to bedrock (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~depth to bedrock (very limited) ~too clayey (limited)	Very limited ~slope (very limited) ~soft bedrock <40" (moderately limited) ~cutbanks cave (slightly limited)
MxC: Mucara-----	Very limited ~depth to bedrock (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (slightly limited)	Limited ~soft bedrock <40" (limited) ~too clayey (moderately limited) ~cutbanks cave (slightly limited)
MxD2: Mucara-----	Very limited ~depth to bedrock (very limited) ~shrink-swell (moderately limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited)	Very limited ~slope (very limited) ~soft bedrock <40" (limited) ~too clayey (moderately limited)
MxE2: Mucara-----	Very limited ~depth to bedrock (very limited) ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited)	Very limited ~slope (very limited) ~soft bedrock <40" (limited) ~too clayey (moderately limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
MxF2: Mucara-----	Very limited ~slope (very limited) ~depth to bedrock (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited)	Very limited ~slope (very limited) ~soft bedrock <40" (limited) ~too clayey (moderately limited)
NaD: Naranjo-----	Very limited ~low strength (very limited) ~shrink-swell (very limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~excess lime (very limited) ~too clayey (very limited) ~slope (very limited)	Very limited ~slope (very limited) ~too clayey (moderately limited) ~cutbanks cave (slightly limited)
NcD2: Nipe-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~slope (limited) ~too acid (slightly limited)	Limited ~slope (limited) ~too clayey (limited) ~cutbanks cave (slightly limited)
PaC2: Palmarejo-----	Slightly limited ~low strength (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (limited) ~slope (slightly limited)	Moderately limited ~too clayey (moderately limited) ~cutbanks cave (slightly limited) ~slope (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
PeD2: Perchas-----	Very limited ~low strength (very limited) ~shrink-swell (very limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~slope (very limited) ~too acid (moderately limited)	Very limited ~cutbanks cave (very limited) ~slope (very limited) ~too clayey (limited)
PlE2: Plata-----	Very limited ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~slope (very limited) ~small stones (very limited) ~area reclaim (very limited)	Very limited ~slope (very limited) ~cutbanks cave (very limited) ~too clayey (moderately limited)
PlF2: Plata-----	Very limited ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~slope (very limited) ~small stones (very limited) ~area reclaim (very limited)	Very limited ~slope (very limited) ~cutbanks cave (very limited) ~too clayey (moderately limited)
QuD2: Quebrada-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (moderately limited)	Very limited ~slope (very limited) ~too clayey (moderately limited) ~cutbanks cave (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
QuE2: Quebrada-----	Very limited ~slope (very limited) ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (moderately limited)	Very limited ~slope (very limited) ~too clayey (moderately limited) ~cutbanks cave (slightly limited)
QuF2: Quebrada-----	Very limited ~slope (very limited) ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (moderately limited)	Very limited ~slope (very limited) ~too clayey (moderately limited) ~cutbanks cave (slightly limited)
Re: Reilly-----	Not limited	Possible source ~excess fines (bottom layer) ~possible source (thickest layer)	Possible source ~excess fines (thickest layer) ~possible source (bottom layer)	Very limited ~small stones (very limited) ~area reclaim (very limited)	Very limited ~cutbanks cave (very limited) ~wetness (limited) ~flooding (moderately limited)
RlB: Rio lajas-----	Not limited	Possible source ~excess fines (bottom layer) ~possible source (thickest layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too sandy (very limited)	Very limited ~cutbanks cave (very limited)
RpC2: Rio piedras-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~too acid (limited) ~slope (slightly limited)	Limited ~too clayey (limited) ~cutbanks cave (slightly limited) ~slope (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
RpD2: Rio piedras-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~slope (very limited) ~too acid (limited)	Very limited ~slope (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)
Rr: Riverwash-----	Not rated	Not rated	Not rated	Not rated	Not rated
RsD2: Rosario-----	Very limited ~low strength (very limited) ~depth to bedrock (very limited) ~shrink-swell (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~slope (very limited) ~depth to bedrock (very limited)	Very limited ~hard bedrock <40" (very limited) ~slope (very limited) ~too clayey (limited)
RsE2: Rosario-----	Very limited ~low strength (very limited) ~depth to bedrock (very limited) ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (very limited) ~depth to bedrock (very limited)	Very limited ~hard bedrock <40" (very limited) ~slope (very limited) ~too clayey (limited)
RsF2: Rosario-----	Very limited ~slope (very limited) ~low strength (very limited) ~depth to bedrock (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (very limited) ~depth to bedrock (very limited)	Very limited ~hard bedrock <40" (very limited) ~slope (very limited) ~too clayey (limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
SaD: San german-----	Very limited ~depth to bedrock (very limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~small stones (very limited) ~slope (very limited)	Very limited ~hard bedrock <40" (very limited) ~slope (very limited) ~cutbanks cave (slightly limited)
SaE: San german-----	Very limited ~depth to bedrock (very limited) ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~small stones (very limited)	Very limited ~hard bedrock <40" (very limited) ~slope (very limited) ~cutbanks cave (slightly limited)
ScB: San german-----	Very limited ~depth to bedrock (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~excess lime (very limited) ~small stones (very limited)	Very limited ~hard bedrock <40" (very limited) ~cutbanks cave (slightly limited)
SdF2: San sebastian-----	Very limited ~shrink-swell (very limited) ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Possible source ~excess fines (thickest layer) ~possible source (bottom layer)	Very limited ~excess lime (very limited) ~slope (very limited) ~small stones (very limited)	Very limited ~slope (very limited) ~cutbanks cave (very limited) ~too clayey (limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
SeB: Santa clara-----	Very limited ~low strength (very limited) ~depth to bedrock (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~depth to bedrock (limited)	Very limited ~hard bedrock <40" (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)
SmE2: Santa marta-----	Very limited ~low strength (very limited) ~slope (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (limited)	Very limited ~slope (very limited) ~depth to bedrock (limited) ~too clayey (moderately limited)
Sn: Santoni-----	Very limited ~low strength (very limited) ~shrink-swell (very limited) ~wetness (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited) ~wetness (moderately limited)	Very limited ~wetness (very limited) ~flooding (moderately limited) ~too clayey (moderately limited)
SNS: Soils not surveyed-----	Not rated	Not rated	Not rated	Not rated	Not rated
So: Serpentinite outcrop-----	Not rated	Not rated	Not rated	Not rated	Not rated

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
SrD: Soller-----	Very limited ~depth to bedrock (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (limited) ~large stones (slightly limited)	Very limited ~hard bedrock <40" (very limited) ~too clayey (limited) ~slope (limited)
Limestone rockland-----	Not rated	Not rated	Not rated	Not rated	Not rated
SrE: Soller-----	Very limited ~low strength (very limited) ~depth to bedrock (very limited) ~shrink-swell (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~too clayey (very limited)	Very limited ~hard bedrock <40" (very limited) ~slope (very limited) ~too clayey (limited)
Limestone rockland-----	Not rated	Not rated	Not rated	Not rated	Not rated
SsD2: Soller-----	Very limited ~depth to bedrock (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (limited) ~large stones (limited)	Very limited ~hard bedrock <40" (very limited) ~too clayey (limited) ~slope (limited)
SsE2: Soller-----	Very limited ~depth to bedrock (very limited) ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~large stones (limited)	Very limited ~hard bedrock <40" (very limited) ~slope (very limited) ~too clayey (limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
StB: Soller-----	Very limited ~depth to bedrock (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~large stones (slightly limited)	Very limited ~hard bedrock <40" (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)
StC: Soller-----	Very limited ~depth to bedrock (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (slightly limited) ~large stones (slightly limited)	Very limited ~hard bedrock <40" (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)
StD: Soller-----	Very limited ~depth to bedrock (very limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~large stones (slightly limited)	Very limited ~hard bedrock <40" (very limited) ~slope (very limited) ~too clayey (limited)
StE: Soller-----	Very limited ~depth to bedrock (very limited) ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~large stones (slightly limited)	Very limited ~hard bedrock <40" (very limited) ~slope (very limited) ~too clayey (limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
Ta: Talante-----	Slightly limited ~wetness (slightly limited)	Possible source ~excess fines (thickest layer) ~possible source (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too sandy (very limited) ~too acid (slightly limited) ~wetness (slightly limited)	Very limited ~cutbanks cave (very limited) ~wetness (very limited) ~flooding (moderately limited)
TcB2: Tanama-----	Very limited ~shrink-swell (very limited) ~low strength (very limited) ~depth to bedrock (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~too clayey (very limited) ~large stones (slightly limited)	Very limited ~hard bedrock <40" (very limited) ~too clayey (very limited) ~cutbanks cave (slightly limited)
TcC2: Tanama-----	Very limited ~shrink-swell (very limited) ~low strength (very limited) ~depth to bedrock (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~too clayey (very limited) ~large stones (slightly limited)	Very limited ~hard bedrock <40" (very limited) ~too clayey (very limited) ~cutbanks cave (slightly limited)
TcD2: Tanama-----	Very limited ~shrink-swell (very limited) ~low strength (very limited) ~depth to bedrock (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~too clayey (very limited) ~slope (very limited)	Very limited ~hard bedrock <40" (very limited) ~too clayey (very limited) ~slope (very limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
TcE2: Tanama-----	Very limited ~shrink-swell (very limited) ~low strength (very limited) ~depth to bedrock (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~depth to bedrock (very limited) ~slope (very limited) ~too clayey (very limited)	Very limited ~hard bedrock <40" (very limited) ~slope (very limited) ~too clayey (very limited)
Td: Tidal swamp-----	Not rated	Not rated	Not rated	Not rated	Not rated
ToA: Toa-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited)	Moderately limited ~flooding (moderately limited) ~too clayey (moderately limited) ~cutbanks cave (slightly limited)
Ts: Toa-----	Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~too clayey (very limited)	Moderately limited ~flooding (moderately limited) ~too clayey (moderately limited) ~cutbanks cave (slightly limited)
VoD2: Voladora-----	Very limited ~low strength (very limited) ~slope (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (limited) ~too acid (limited)	Very limited ~slope (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)

Mayaguez Area, Puerto Rico Western Part: Detailed Soil Map Legend

Construction Materials and Excavating--Continued

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
VoE2: Voladora-----	Very limited ~low strength (very limited) ~slope (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Very limited ~slope (very limited) ~too clayey (limited) ~too acid (limited)	Very limited ~slope (very limited) ~too clayey (limited) ~cutbanks cave (slightly limited)
VrC2: Voladora-----	Very limited ~low strength (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited ~excess fines (bottom layer) ~excess fines (thickest layer)	Limited ~too clayey (limited) ~too acid (limited) ~slope (slightly limited)	Limited ~too clayey (limited) ~cutbanks cave (slightly limited) ~slope (slightly limited)
W: Water> 40 acres-----	Not rated	Not rated	Not rated	Not rated	Not rated